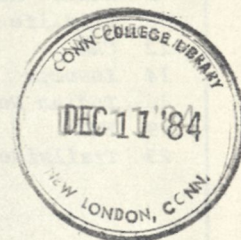


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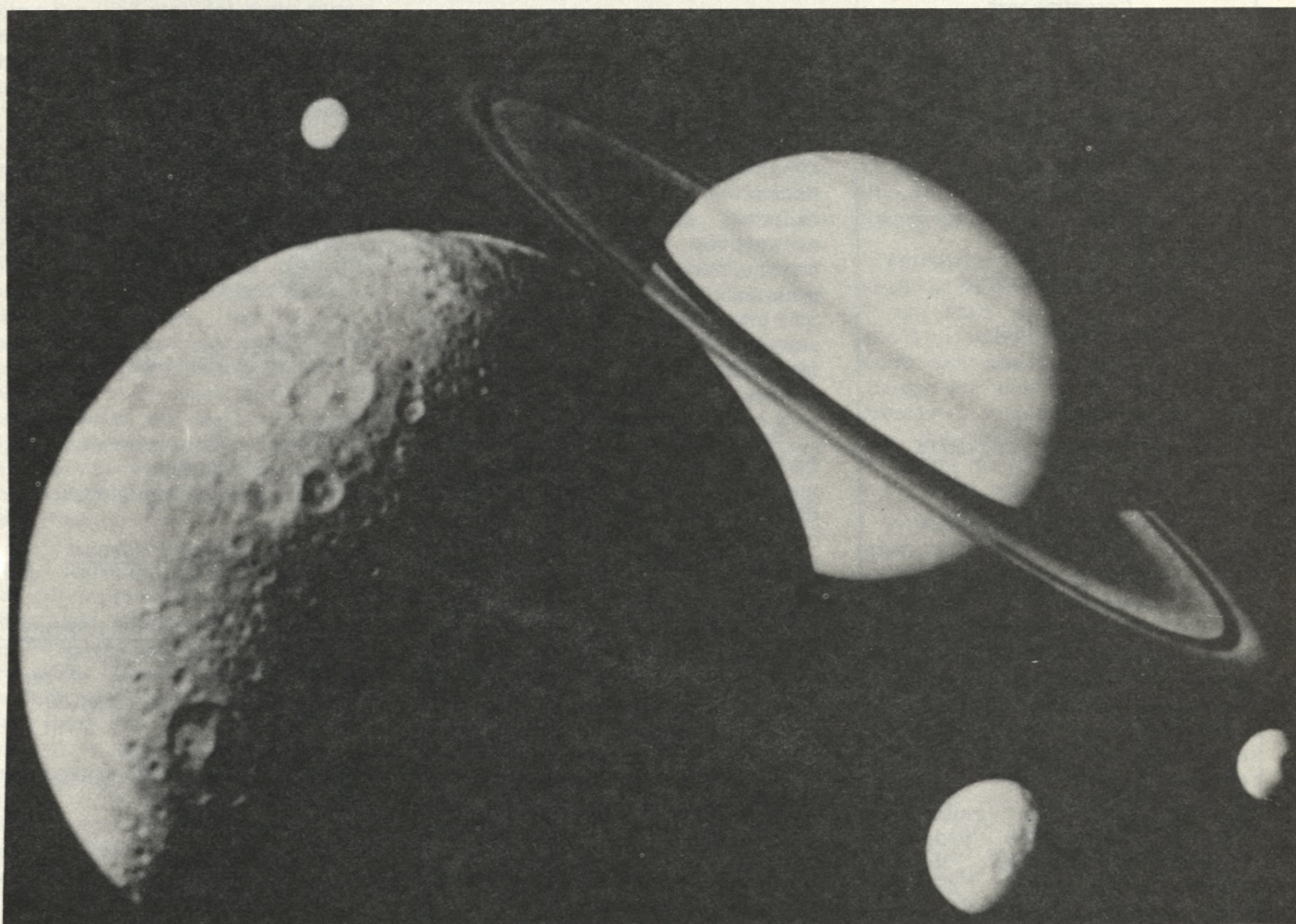
Citizens' Bulletin

Volume 12 Number 3 November 1984 \$5/yr.

The Connecticut Department of Environmental Protection



A Glance Toward Infinity



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Cover Photo: Gengras Planetarium

Contents

- 3 Gengras Planetarium
- 6 Nature Notes
- 8 Wildlife Rehabilitation
- 12 CAM
- 14 Insects
- 16 Indian Reservation
- 19 FYI
- 23 Trailside Botanizing

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Operation TIP to Protect Wildlife

Reducing poaching is what TIP, which stands for Turn in Poachers, is all about. The program is being developed in Connecticut by the Department of Environmental Protection's Law Enforcement Bureau in cooperation with the Connecticut Wildlife Federation and the Citizens' Advisory Council to the DEP. TIP is actively seeking the help of Connecticut's citizens in reducing the theft of our state's valuable fish and wildlife resources.

TIP PROMOTES REPORTING

The TIP program will promote the reporting of all wildlife and fisheries violations. In addition, TIP will encourage the reporting of a number of the most serious wildlife and fishing offenses (see the list included) by offering substantial rewards for information leading to arrests for these crimes. The program is also designed to compile and better utilize information that is supplied by the public to more effectively deal with poaching problems throughout the state.

The Department of Environmental Protection will provide the mechanism for reporting violations through an existing toll-free telephone line at 1-800-842-HELP (4357). Conservation Officer Robert Aborn will serve as coordinator for the program.

Callers, who indicate that they are calling for Operation TIP, will be given an identification code and can remain completely anonymous. After

"The Connecticut Department of Environmental Protection is an equal opportunity agency that provides services, facilities and employment opportunities without regard to race, color, religion, age, sex, physical handicap, national origin, ancestry, marital status or political beliefs."

a suitable period of time, the caller can get back to the communications center and, using the identification code, learn if he or she is eligible for a reward. Arrangements for payment will also be made at that time.

Studies show that poachers take at least as many animals and fish each year as legitimate hunters. Poaching depletes wildlife and fisheries resources and takes game and fish from legitimate sportsmen. It also robs the state of revenues generated by licensing hunters and fishermen. Poaching is a crime that tends to be under-reported, however, and laws governing fish and wildlife tend to be under-enforced.

TIP REWARDS "TIPS" LEADING TO ARRESTS FOR SPECIFIED OFFENSES

Operation TIP (Turn in Poachers) promotes the reporting of all wildlife crimes via a toll-free 24-hour hotline (1-800-842-HELP). TIP also offers substantial rewards for information leading to arrests for the following offenses:

Deer

Illegal hunting, killing \$75.00
Jacklighting \$200.00; Selling (commercial operations) \$300.00+

Trapping

Illegal trapping \$50.00

Birds of prey

Hunting or killing \$200.00

Lobsters

Taking or possession of shorts or eggbearers \$50.00
Molesting/stealing \$100.00

Striped bass/Atlantic salmon

Illegal taking \$50.00

Protected fish and wildlife species

Illegal taking/non-game birds \$25.00; Illegal taking of rare or endangered species \$200.00

Commercial operations

Illegal selling of all species other than deer \$100.00+

Turkeys

Illegal hunting, killing or possession \$100.00

NOTE: The above offenses and rewards will be subject to periodic evaluation and potential adjustments to best serve and promote Operation TIP.

Gengras Planetarium

Reaching Out to the Original Stillness

By Este Stifel, Environmental Intern

There is a deep-rooted need in human beings to know who we are and where we come from. Some say that we are products of evolution, while others say that we were placed here already. Ms. Francine Jackson, the new director of Gengras Planetarium at the West Hartford Children's Museum, has a novel theory about our beginnings: "We are recycled star-matter." In a few million years, she went on to say, we may become just part of another meteoroid hurtling through space. This was the eye-opening start to an exhilarating morning spent at the planetarium.

Ms. Jackson, who became the head of the planetarium on July 1st, 1984, has been fascinated by astronomy ever since she was a child. She remembers climbing onto her roof with a small telescope to watch lunar eclipses. She now holds a degree in astronomy. Astronomy is much more than just a job to Ms. Jackson. It has affected her approach toward life as well. She looks up, she says, instead of down when leaving a building or getting out of a car. Great world problems are still important to her, but she sees them from a different perspective. Things tend to become less urgent when perceived in terms of billions of light years.

The planetarium has a special show for children (M-F 3:30 pm, S-S 1:30 pm and 3:30 pm). This show's aim is to bring greater awareness of deep space to children, to make them think more of meteoroids, asteroids, comets, and satellites and less of "Star Wars" and UFOs. In a show on Saturday mornings at 11:30, the night sky is shown as a dynamic, everchanging, interrelated system. Have you ever wondered what the people of New Guinea see when they look to the sky? Or what Robert Byrd saw when he first reached the North Pole? The Gengras Planetarium will not only tell you how it looked, it will show you.

The name planetarium originally meant "star projector," and referred to the specific device that projects the images of the stars onto the dome. Now it has come to mean the entire building. The star projector at the West Hartford Planetarium has one of the best star fields available. It is capable of changing latitude, so any sky in the world can be produced for any time of night and for any night of the year. Also, this star projector has the ability to change direction so north can be anywhere on the dome, a technique developed by the U.S. military in navigational training. Ms. Jackson and the staff produce most of the

shows specifically for the Gengras Planetarium. The current production, "Great Galaxies," beginning October 6th, has been entirely and uniquely created for this planetarium.

Astronomy has fascinated man since the beginning of time. We look to the stars and, for a while, we return to stability and serenity. Our world may be in constant, frenzied change, but the sky is peaceful and constant. And somehow, we feel that the answers to our ultimate questions must be found somewhere in the deep, starry skies.

Astronomy today has become much more sophisticated than it was in the time of the ancients. Today, we realize that when we look out in space, we are actually looking back in time. Light travels at a rate of 186,000 miles per second. A light-year is the distance light travels in a year, almost six trillion miles. Light from the sun is eight minutes old when we perceive it. Some star-light we see now originated some 2,500 years ago, when the Parthenon was being built. The Andromeda Galaxy is 2 1/4 million light-years away -- it is the most distant deep-space object we can see with the naked eye. And yet, Andromeda may no longer exist -- it may have disappeared one million years ago.



The Andromeda Galaxy, the most distant deep-space object we can see with the naked eye.

Ms. Jackson feels that the study of astronomy will help us to understand our future. What we see in space can be reasonably expected to indicate possibilities for the planet earth. Astronomers have found no other solar systems in the universe, as of yet. (A solar system consists of a sun and the accompanying planets.) However, there do remain some uncharted areas of the universe left to be explored. Our sun is actually an average star; it is middle-sized and middle-aged. Planets revolve around the sun, our solar system moves around the Milky Way Galaxy, and the Milky Way Galaxy appears to move around the universe relative to other galaxies such as Andromeda.

The universe may be seen as one, vast, delicately-balanced ecosystem, with every part determining and being determined by all other parts. This ecosystem, like all ecosystems, has a potential for abuse, some feel.

The original stillness of outer space has already been polluted by radio and television transmissions. The idea of turning outer-space into a dumping area for physical waste products is one which does in fact concern many astronomers.

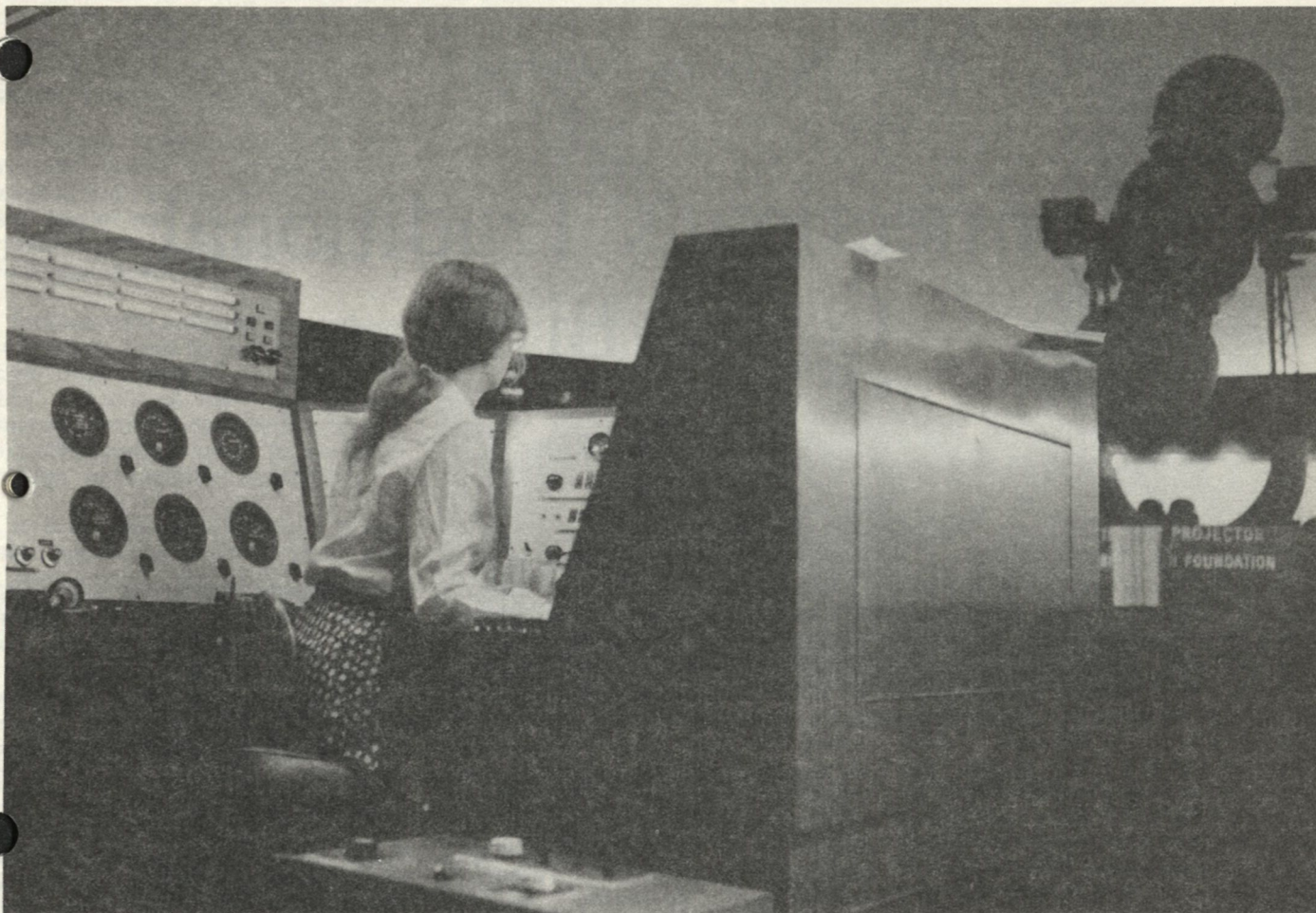
Astronomy can be a wonderful hobby for amateur star-gazers. A good way to start is with a visit to a planetarium. Here one can become familiar with constellations as they appear in the night sky.

A familiarity with the constellations is enhanced by some knowledge of their rich mythology. In the mythology surrounding the stars, we can see very clearly a record of man's imagination. Star-gazers in cultures as diverse as the Greeks, Romans, and American Indians have described the area around the Big Dipper as a bear. The Chinese have identified that area as a rickshaw, while the English have

seen a plow in that part of the heavens. The reason for that may be that a nearby constellation, Boötes, has been known in mythology as the inventor of the plow.

Orion is another constellation with a colorful and intriguing mythological background. Orion is said to have been killed by the sting of a scorpion, and it is for that reason that Scorpio and Orion are never seen in the sky at the same time. Orion drops below the horizon in late spring, when Scorpio rises. It appears that Scorpio is perpetually chasing Orion across the night sky.

The sword of Orion is of particular interest to astronomers, in that it is said to be an area of the universe where stars are born. The Great Nebula, which appears in Orion's sword, is said to be where the star matter that went into the four stars of the Trapezium constellation was created. These stars are embedded



Ms. Francine Jackson at the controls of the "star projector."

within the nebula and can be seen with binoculars.

Our nearest galactic neighbor, Andromeda, is part of the Andromeda constellation. Mythology has Andromeda as a young girl hanging from the leg of Pegasus, the winged horse.

A star-wheel chart is a good teaching method for new enthusiasts. When viewing the night sky with the help of a star-wheel, red-colored cellophane should be used to filter any light source used. This will eliminate night-blindness after consulting the star-wheel. For closer looks at deep-sky objects, small binoculars (7 X 35 or 7 X 50) are recommended. They are easily held and can be used elsewhere, too. As interest increases, more specialized equipment may be considered.

There is some sky activity of note this fall. Around Thanksgiving, the

Leonid meteor shower will occur in the region of the constellation Leo. There should be visible from five to twenty meteors every hour. The Geminid meteor shower, peaking December 13th, should be even more spectacular with 25-40 meteors per hour.

In addition to the Children's Museum in West Hartford, those interested in further study and enjoyment of astronomy are referred to the following museums and observatories:

The Bridgeport Museum of Art, Science, and Industry: Bridgeport - Tel: 372-3521

Central Connecticut State University (planetarium and observatory): New Britain - Tel: 827-7419

Mystic Seaport Planetarium: Mystic - Tel: 527-0711 Ext. 255

Stamford Museum and Nature Center

(planetarium and observatory): Stamford - Tel: 322-1646

Talcott Mountain Science Center: Avon - Tel: 677-8571 ■

Este Stifel has recently joined the staff of the Citizens' Bulletin as a student intern. She is now a senior at Trinity College, majoring in environmental studies, and plans to pursue a career in this field.

Nature Notes

Connecticut's Traditional Game Birds

By Penni Sharp

It is perhaps an understatement to say that November is a month that most New Englanders do not await eagerly. The spectacular autumn color seen in October has passed, and trees are mostly leafless by mid-November. Although deep frosts have not yet caused the ground to freeze, the chill in the air warns of winter to come and drives many of us indoors. Days are short, and dusk comes early.

The bleakness of November is offset in part by the harvest of the year's bounty. We observe this event every year in the celebration of our unique American tradition, Thanksgiving. Associated with the fall harvest and hunting season are the game birds, particularly the wild turkey. While most of us today purchase our turkeys in a supermarket, early celebrators of the Thanksgiving feast had to hunt to bring game to the table.

Modern day hunters may be armed with gun, camera, or binoculars and they hunt more for sport or pleasure than out of necessity. Whatever the purpose, those who pursue the game birds can appreciate them as the interesting creatures they are. Among the many species of game birds, there are several upland species that are found in Connecticut.

Considered by many to be the king of game birds is the wild turkey (*Melleagris gallopavo*). This bird once ranged throughout the

United States with the exception of the northwestern and northern prairie states. However, by the early 1800s, the turkey was on the verge of extinction due to loss of habitat and uncontrolled market hunting. Today, it has been reintroduced throughout much of its former range, including Connecticut. Its range is continually expanding due to the success of game management programs. Connecticut's program has been successful beyond expectations, and a limited hunting season opened in May 1981.

The wild turkey is a large bird with iridescent bronze plumage. The feathers can reflect hues of green, red, or gold depending upon the light conditions. Males average from 14 to 18 pounds, while females generally weigh 8 to 10 pounds. A turkey's head and neck are naked and have heavy wattles that extend down the neck. The color on the head and neck can vary from lightish grey, blue, to red, depending upon the turkey's mood. An interesting feature, about which there has been much speculation, is the beard on the male breast. It is made up of modified bristly feathers which continue to grow and are never shed. At maturity, a male turkey's beard may measure 12 inches. Occasionally, female turkeys develop beards.

Male wild turkeys are polygamous, and usually there are as many as five hens to a harem. Breeding activity occurs between mid-March and mid-April. Males are aggressive and

fight regularly, sometimes with fatal results. During courtship, males gather on a strutting ground and compete among themselves. Females are attracted by the gobbling and display during which the males spread their tail feathers in a wild fan.

Nest sites are selected by the hen usually a spot on the ground protected by vegetation. The nest consists of a scrape lined with dead leaves. Normally, one egg per day is laid, the average clutch size ranging from eight to 15 eggs. Incubation lasts for 28 days with the female responsible for the brooding. The young turkeys, or poults, are precocious and leave the nest within hours of hatching. Although the turkey is a bird of the woodlands, the young birds demand abundant protein and have a better chance for survival if they can forage in grasslands for crickets and grasshoppers. A cold, rainy spring can be devastating to young birds whose downy plumage offers scant protection from rain or snow.

Although relatively strong fliers, turkeys prefer to move by running. This they are well-adapted to do and average between 15 and 20 miles per hour. They are gregarious birds who travel in flocks varying from a single family unit to larger congregations.

Although there is a number of potential predators of wild turkeys, a full-grown bird is difficult to catch. Eggs may be consumed by skunks, raccoons, opossums, and snakes, and

poults are taken by large raptors. However, those surviving to adulthood will probably live a full life span of approximately eight years.

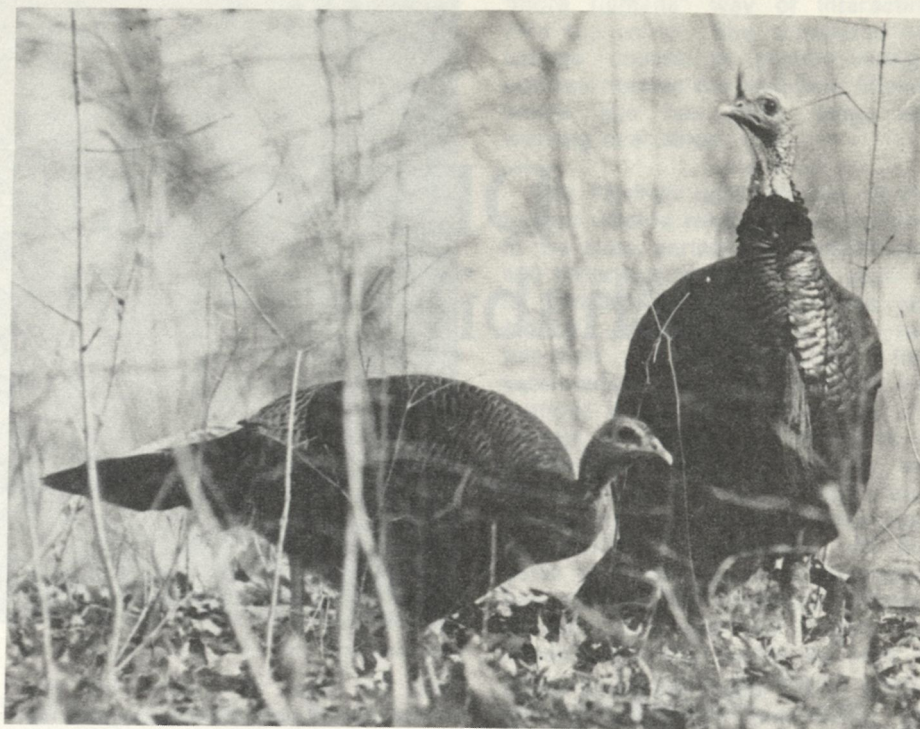
Benjamin Franklin suggested that the wild turkey be named as our national bird. Citing the fact that the bald eagle was a carrion feeder, Franklin believed the turkey to be a more appropriate choice.

Interestingly, although wild turkeys were widely used by Indians for food, some tribes refused to eat them. They considered the birds to be unintelligent and cowardly and feared that these traits might be acquired through consumption of the birds.

It is to the benefit of all those who appreciate wildlife that the reintroduction of this uniquely American bird has met with such success.

Diminutive in comparison to the wild turkey, but a popular game bird, is the bobwhite quail (Colinus virginianus). The bobwhite is a plump, chunky little bird measuring from 8 to 11 inches and weighing less than half a pound. Bobwhites are reddish-brown above with buffy underparts. Males have a white throat patch and broad white stripe over the eye. On the female, these markings are similar but buff-colored.

The bobwhite is a bird of brushy, open country, pastures, farmlands,



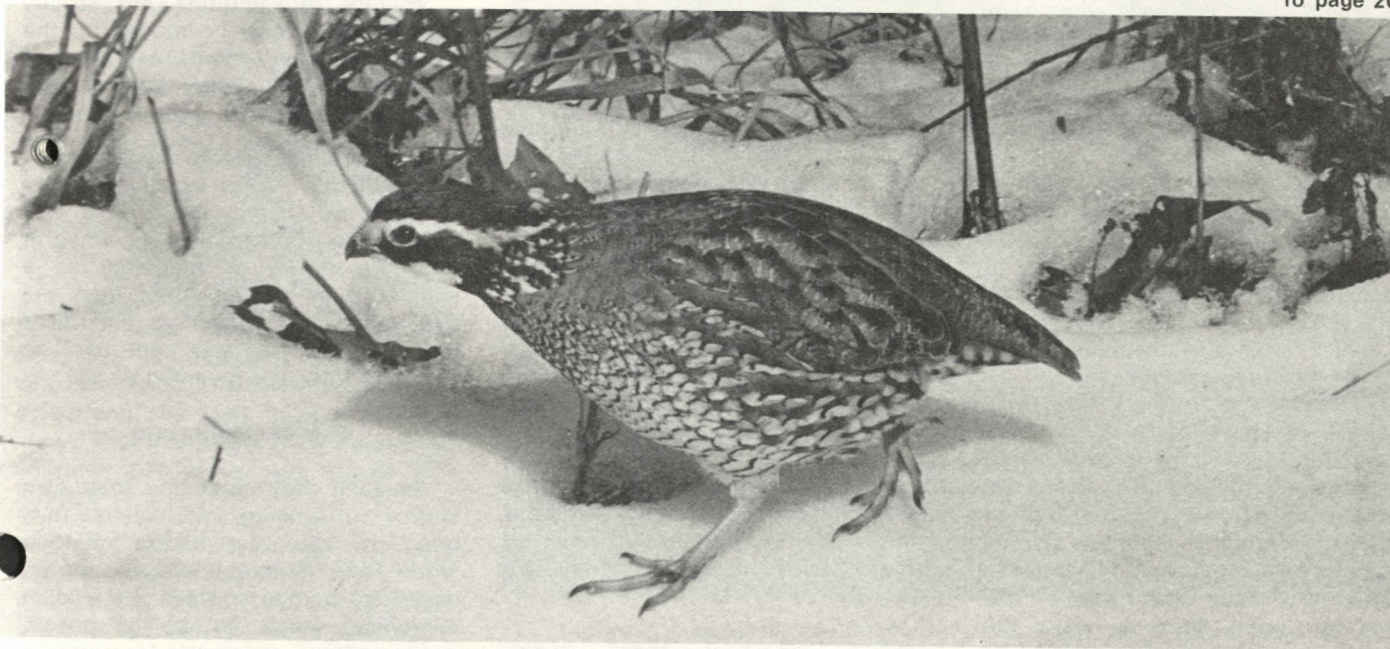
Wild turkey hen and tom: a management program successful beyond expectations.

and forest edges. Its original range extended from Maine west to the upper Mississippi Valley and south to Texas. Within that range, the bobwhite was limited to coastal areas, grasslands, and burned over sites. Since that time, its range has fluctuated widely and it now occurs north as far as southern Massachusetts. Along the northern limit of the range, its numbers are maintained by restocking.

The bobwhite quail is renowned for its call -- repeated whistles of its name. This call is heard most often in the spring and early summer when it is uttered by the male as his mating call or in defense of his territory.

Although the female does not produce this familiar call, she will cluck and squeal to protect her chicks.

To page 20



The bobwhite quail is a plump, chunky little bird, weighing less than half a pound.

DEP's Wildlife Rehabilitation Program

What One Person Can Do

Text and Photos by Robert Paier

One of the many programs under the jurisdiction of DEP's Wildlife Bureau is the Wildlife Rehabilitation Program. It is a small program, the number of individuals involved, both human and non-human, is small, and it is not widely known. Because of this, there is some question as to what, if any, environmental impact this program has. Does it have any significance at all? Is the number of animals affected so small as to make it not worth the effort? In this article, we will explain some of the structure of the Wildlife Rehabilitation Program, meet some of the people who are committed to it, and find out what they do and what they think. And an attempt will be made to determine whether this program is worth-while at all.

The Program

According to Peter Bogue, Assistant Director of DEP's Wildlife Bureau, there are at present 64 licensed wildlife rehabilitators in the state of Connecticut. In 1983, a total of 2,091 birds and mammals were handled by these people.

The purpose of the Wildlife Rehabilitation Program is to respond to orphaned or injured wildlife, to provide the correct amount of care necessary to allow them to survive on their own, and then to release them back to the wild. The important point here is that the animal's status as a wild creature is respected, and that every precaution

must be taken to insure that the animal not become so used to human contact that its future survival is threatened.

"It is illegal to take animals out of the wild and keep them as pets," says Bogue, "and the public should be aware that if they find sick or orphaned wildlife, their correct course of action is to contact the Wildlife Bureau for the name of a licensed rehabilitator."

Many people would like to make pets of wild animals. Generally, animals do not become domesticated in a single generation, and while a raccoon may be cute and cuddly as a baby, as an adult the wildness will be much in evidence and problems will arise. On the other hand, another problem which might arise is permanent imprinting, in which case there is no wildness whatsoever. This often occurs when young raptors are taken. The third most frequently encountered problem is poor nutrition. After a very short period, usually only from seven to ten days, of improper diet, a bird can be crippled for life. To abruptly take a wild animal away from its natural surroundings is a disservice and danger to that animal. It is for that reason that injured, sick, or immature animals should be turned over to persons who have the necessary expertise.

It is required that wildlife rehabilitators be licensed. Holders of

a Wildlife Custodian Permit are authorized to care for small mammals and migratory birds. A more specialized permit is required for deer, and federal permits are required for migratory birds, including raptors and waterfowl.

In order to be granted a permit, the applicant must provide evidence of availability of trained personnel and adequate facilities. The applicant must also demonstrate his sincerity in intending to return the animals to the wild and not simply to obtain them for pets.

Wildlife rehabilitators are strictly volunteers, receive no money for the long hours they put in, and are not reimbursed for the considerable expenses involved.

Who are the wildlife custodians in Connecticut? What exactly do they do and why do they do it? And, in a time of environmental crisis, when in fact the future of humanity as a species is in serious doubt, does the fact that 2,091 mammals and birds were patched up and sent back to the wild have any meaning at all?

The Rehabilitators

Because they must find their own sources of funding, and because they must, by the very nature of their work, keep their animals away from excessive human contact, the wildlife custodians tend to be a private group. They operate independently, to a certain extent away from the



Ms. Ann Augustine with a red fox: the main impact is on the education of children.

mainstream, and they tend to be free-spirited types. Even among themselves, their philosophies are wide-ranging. Dedicated people, people who feel a deep sense of responsibility for the animals they care for, their reasons and motivations for doing this job are uniquely their own. There is no typical wildlife rehabilitator. There are 64 licensed rehabilitators in the state of Connecticut. It would have been nice if we could have talked to all of them. That wasn't possible. We only talked to three.

Ann Augustine

Ann Augustine is the Director of Educational Programs at Connecticut Audubon Society in Fairfield, and for seven years has devoted her time and energy to establishing and coordinating the Wildlife Rehabilitation Program at that facility. She speaks softly, with the clarity of one who has carefully considered her own ideas and actions, and she maintains an openness and humility. She speaks simply and unpretentiously of something she calls "a reverence for life." There is about Ann Augustine, although she denies any formal ties, a religious quality.

Ms. Augustine's career at the Audubon Society began seven years ago, when she was a junior at Oberlin College, studying to be a veterinarian. She came home one

summer and took part in a class at the Audubon Society taught by Mr. Marshall Case, who is currently the north-east vice-president at the National Audubon Society. This was a profound experience for Ms. Augustine and it was at that point that she knew she was "hooked" on a combination of teaching and wildlife and children, and on finding a

"more humane" way of interacting with the world. She completed her college course in psycho-biology, and returned to the Audubon Society where she has been living and working ever since.

The Fairfield unit has one of the largest wildlife rehabilitation facilities in the state, caring for approximately 500 birds and mammals per year. It is licensed on both the state and federal levels. There are two full-time assistants, four veterinarians on call, and in- and outdoor cages for animals. All the money involved in the operation is donated by private citizens, by the Audubon Society, or through fund raising, and all the assistance from veterinarians is voluntary. At this point, says Ms. Augustine, the facility has attained its maximum efficient growth. If it got any bigger, she doesn't feel she would be able to respond to each individual animal and the operation would get "impersonal."

One of the most popular innovations of the Connecticut Audubon Society is the Foster Family Program. The Society has on file some 70 families, all of whom have been screened and trained, whose job it is to bring orphaned or



"If somebody comes to me with a sick animal, I'll take care of it. I don't discriminate."

abandoned baby animals to the point where they are able to fend for themselves, at which time they are released. Birds are usually kept for three weeks, mammals for five weeks. Because of the fact that baby animals are very cute and lovable and easy to get attached to, a very special kind of compassion is required here. The families must be able to love the animals enough to let them go. The ability to let go is a recurring theme in wildlife rehabilitation.

There are at this time numerous animals being cared for at the Audubon Society's facilities, including a red fox, raccoons, opossums, skunks, squirrels, owls, hawks, and more. Some are awaiting release, while others have been classified as "non-releasable," animals whose conditions are such that they can never be released and expected to survive on their own. These animals have largely been recruited for Ms. Augustine's travelling roadshow. Each year, she is invited to lecture to more than 100 schools, and it is here that she feels she is able to do her most important work. "When I show children an animal that has been injured, it makes them more aware of wildlife, and of the consequences of their actions." There are a number of animals and birds which are part of the lecture tour, including a tiny barn owl and an egret that sustained head damage and simply cannot fend for itself. These animals are popular with children.

"We try to encourage people to be more humane, and to nurture that idea in children. We try to teach them to preserve and protect all resources."

Finally, Ms. Augustine was asked if she felt what she was doing had any significant impact environmentally. She was sure that as far as the wildlife itself was concerned, she has had little effect.

"But, we do have tremendous impact on children. Children have come to our groups here with behavioral problems, children who previously had responded to no one. And yet, when they interact with animals, these children do well. Our impact is on the education of children, and then indirectly on the environment and the wildlife. We teach caring and commitment and a sense of responsibility."



Stuart Mitchell has been specializing in raptor care since 1970.

And then, as an afterthought, Ms. Augustine added, "As long as somebody comes to me with a sick animal, I'll take care of that animal. No matter what its condition, no matter what kind of animal it is. I don't discriminate." She paused for a moment. "I guess that's it. I don't discriminate."

The Mitchells

Jan and Stuart Mitchell are an interesting couple. They are interesting individually and they are interesting together. They are tight in the way some pre-TV couples are, people who spend a lot of time together, honestly and deeply sharing a common purpose. They are the kind of couple that if one pauses in mid-sentence, the other can pick right up without missing a beat.

The Mitchells are federally licensed to care for raptors, birds of prey. They began as birders, got involved in bird banding, and since 1970 they have been specializing in raptors. "You have to specialize," says Stuart Mitchell, "in order to give the birds the best care." Fourteen years ago, there was little information available, no texts to go by, and so at that time, they just felt their way. "In the old days, our success rate was 30 to 50 percent. Now we operate at better than 60 percent. But I'm always learning,"

says Mitchell. "Every bird presents a different opportunity to learn."

Living in Portland, the Mitchells have a case-load of 100 to 150 birds per year. They have built an extensive cage system on their property, which is kept well out of range of casual visitors, in order to insure that the birds are not allowed to become too familiar with human beings. Stuart Mitchell has what are referred to in animal rehabilitation circles as "good hands." Watching him handle an injured red-tailed hawk quickly shows a man of experience and an uncanny rapport with wildlife at work. Even the bird, a wild, dangerous, predatory animal, certainly suffering fear and pain, seems to have confidence in Mitchell's touch, seems somehow to trust him. For Mitchell, there is nothing special going on here. For the observer, it is a rare and privileged moment.

For the Mitchells, the payoff in what they do is to be able, finally, after caring for an injured bird, to watch it fly away, free and strong, back into the wild. Jan Mitchell describes this feeling as the motivating factor in what she does. "These birds belong to everyone. They don't belong to anyone in particular. They should be wild and left alone. What we are doing is only recognizing our responsibility for them."

Beyond the rehabilitation, however, the Mitchells feel it is also critical that an endangered species be able to return to a healthy habitat. An endangered habitat nullifies all the work they do for an endangered species.

Does what they do have an environmental impact? The Mitchells are tentative on this point. They do not feel that numerically their work has a significant effect on raptor

populations. Also, beyond that, they don't know in the long run whether it is correct to take on some birds, refuse others, and whether or not all their decisions are finally the right ones. In spite of the fact that the Mitchells are strongly committed people, they both retain a humility about their activities. Their biggest contribution, they feel, is in making others aware of the natural world, and of the need to treat it with respect and responsibility.

A final insight into what the Mitchells, and perhaps all wildlife rehabilitators, are doing: although it might seem like a "glamorous" kind of work, dealing with exotic wild creatures, Jan Mitchell emphatically states that this is not what it's all about. Wildlife rehabilitation is a job characterized by long hours, the absolute necessity of being at the same place at the same time every day -- not just when it's convenient, or fun, but every day -- and working with animals on a "convalescent home" basis. It is fundamentally messy work, not glamorous work, and people who expect glamour and fun with cute animals will be quickly awakened.

"And there are nasty parts, too," says Stuart Mitchell. "You do have to play God, you do have to decide which bird might have a chance, and which bird isn't going to make it. It's not easy all the time."

Stuart and Jan Mitchell are people who can be depended on to do a job even if it isn't easy all the time. They are people, one senses, who will be there in the crunch. Maybe that's what the red-tailed hawk knew.

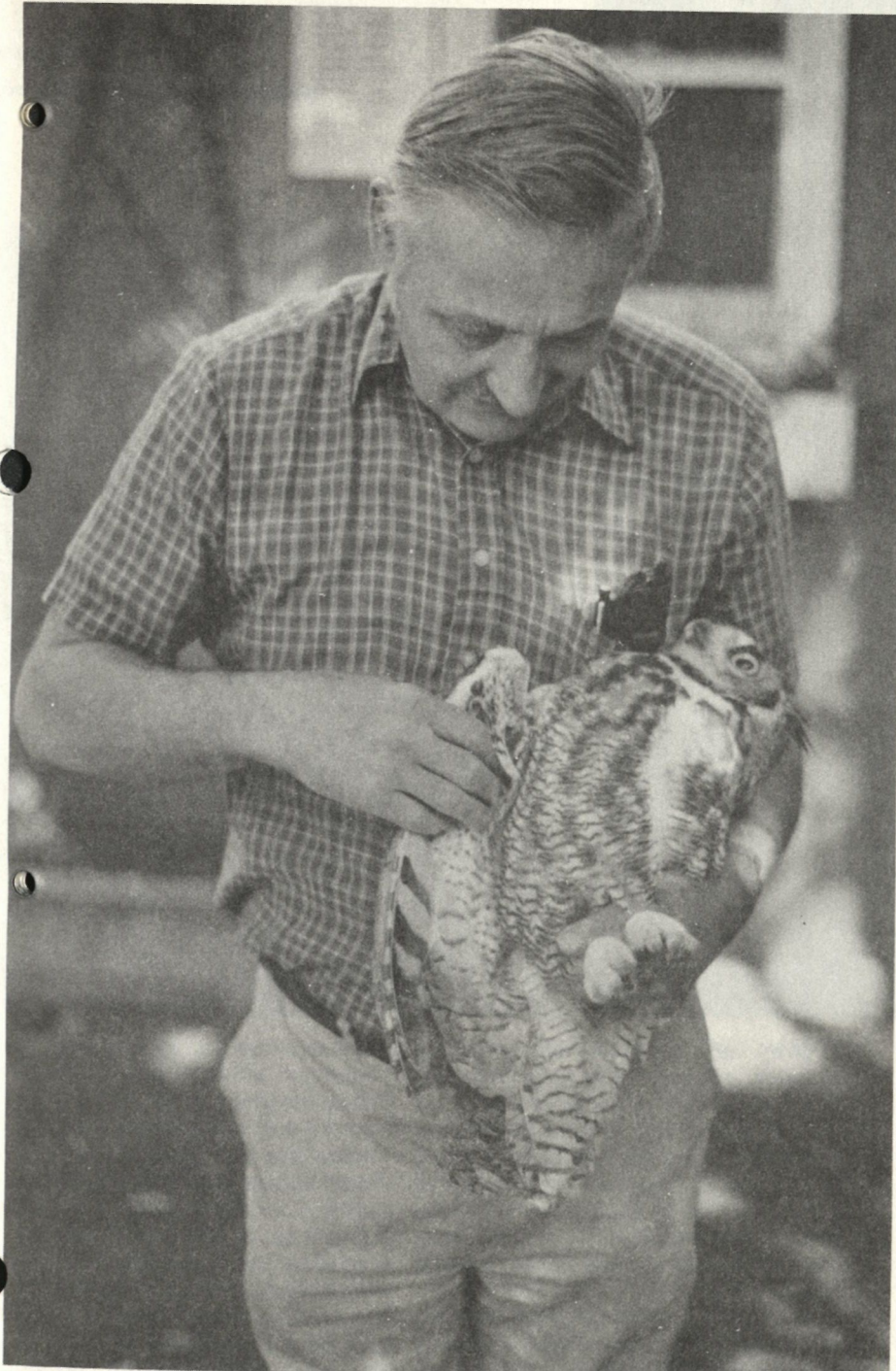
What One Person Can Do

In looking at the wildlife rehabilitators, a very pertinent question continues to present itself. This question appears again and again. We see good people, doing unselfish work, people who offer their time and energy in order to help a very small number of birds and animals. We are forced to ask the question, why do this at all? What possible effect can this have on anything, taking into account the larger scheme of things? What, after all, can any one individual really do? This is a vitally important question.

In India, where starvation has long been a daily reality, there is a Catholic nun who offers food and shelter to a small number of hungry, sick, and orphaned children. "With millions of starving children," she is asked, "what sense do you think it makes to just feed a few?"

And because she is often asked this same question, the nun has her answer ready: "I can only feed one child at a time."

Some people seem to know very clearly what one person can do. ■



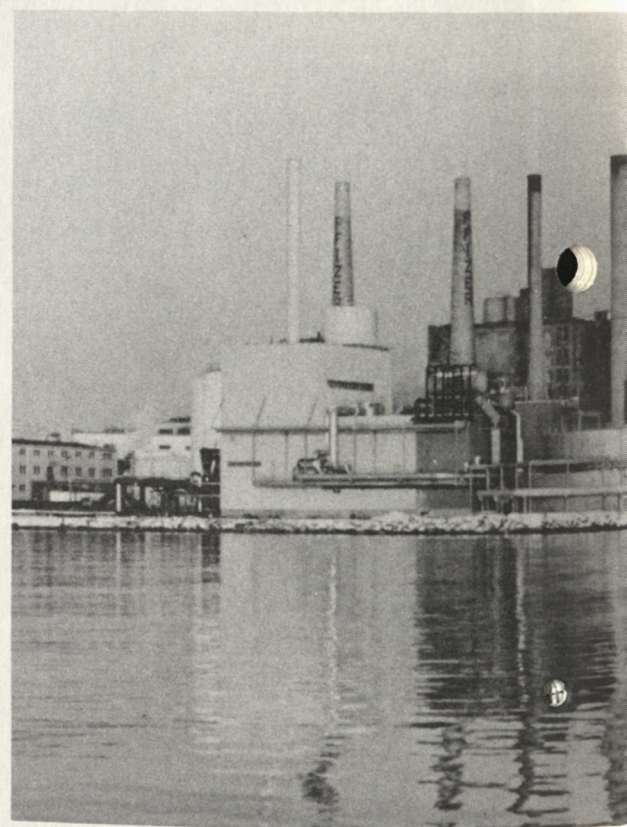
A man of experience and uncanny rapport with wildlife.



Managing and the Coastal

By Daniel

Public Participation Coordinator



Over a century ago, Daniel Webster dubbed Long Island Sound "The American Mediterranean." In recent years, the Sound has been frequently characterized as an "Urban Sea." Both images, the one of recreation and pleasure and the other of intense use, are appropriate for Connecticut's coastal area.

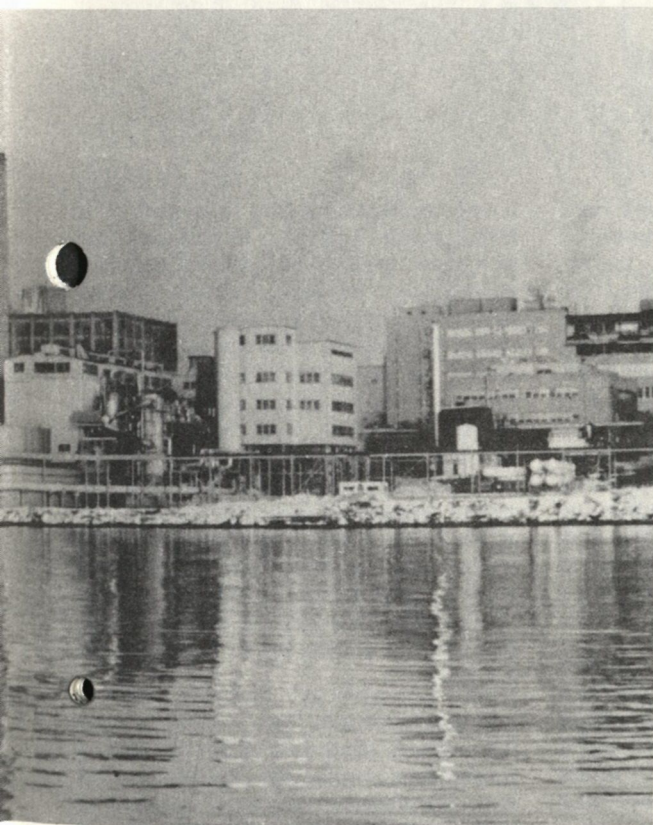
Today our use of and dependency on the coastline has greatly expanded. Forty percent of Connecticut's population lives in the 36

coastal towns, making the average density of housing in the coastal area nearly three times greater than in inland areas. Seasonal dwellings have become permanent residences, and vacant shorefront land and open space in the coastal area are at a premium. Housing, industrial and commercial development, energy facilities, marine commerce and recreation all compete for a limited amount of available land.

The DEP's Coastal Management Program is a joint state and local

and Protecting Environment

ne Giampa,
nator, Coastal Area Management



effort designed to balance the protection of fragile coastal resources with appropriate shoreline development, especially development that depends on a waterfront location. The program was formally organized in 1980 with the passage of the Connecticut Coastal Management Act. As of early this twenty-one of Connecticut's coastal towns have received Certificates of Approval for having completed Municipal Coastal Programs, and many other towns are

nearing completion of their programs as well.

These awards are signed by DEP Commissioner Stanley Pac and recognize the towns' efforts to establish individualized long-range plans for their coastal resources and land uses. The certificates read, in part, that the town is to be congratulated for "the completion of a program for the effective management, beneficial use, protection and development of its coastal lands and waters." ■



71 capitol avenue hartford, conn. 06106

On "Katydid" and Other Onomatopoeia

Text and Illustration by Paul A. Godwin, Research Entomologist,
Forest Service, United States Department of Agriculture

Most of us are aware that many insects make noises. We are all too familiar with buzzing flies, droning bees, and the whining hum of mosquitoes (female) in the wee small hours of the morning. I'm not sure which is the more maddening, the hum or the silence that follows, a silence heavy with the uncertainty of when and where the bite will come. Then, too, all sorts of beetles, bugs, and bees make quiet sounds that we cannot hear; sounds that convey information to others of their kind. But along about midsummer, when the bird chorus begins to fall silent, and robin no longer sings his even' song, an insect orchestra begins to tune up. And that we can hear, loud and many-voiced, pulsating through the hot, humid summer night.

In Connecticut, there are about 60 species of insects that take part in this concert. Each species has its own tune and tempo (though temperature has much to do with tempo), and each individual plays his own variation. Some sections, the short-horned grasshoppers and cicadas, play only during the day. Others play only at night. But the crescendo, begun by a few species in early spring, reaches its frenzied height during the sultry nights of August.

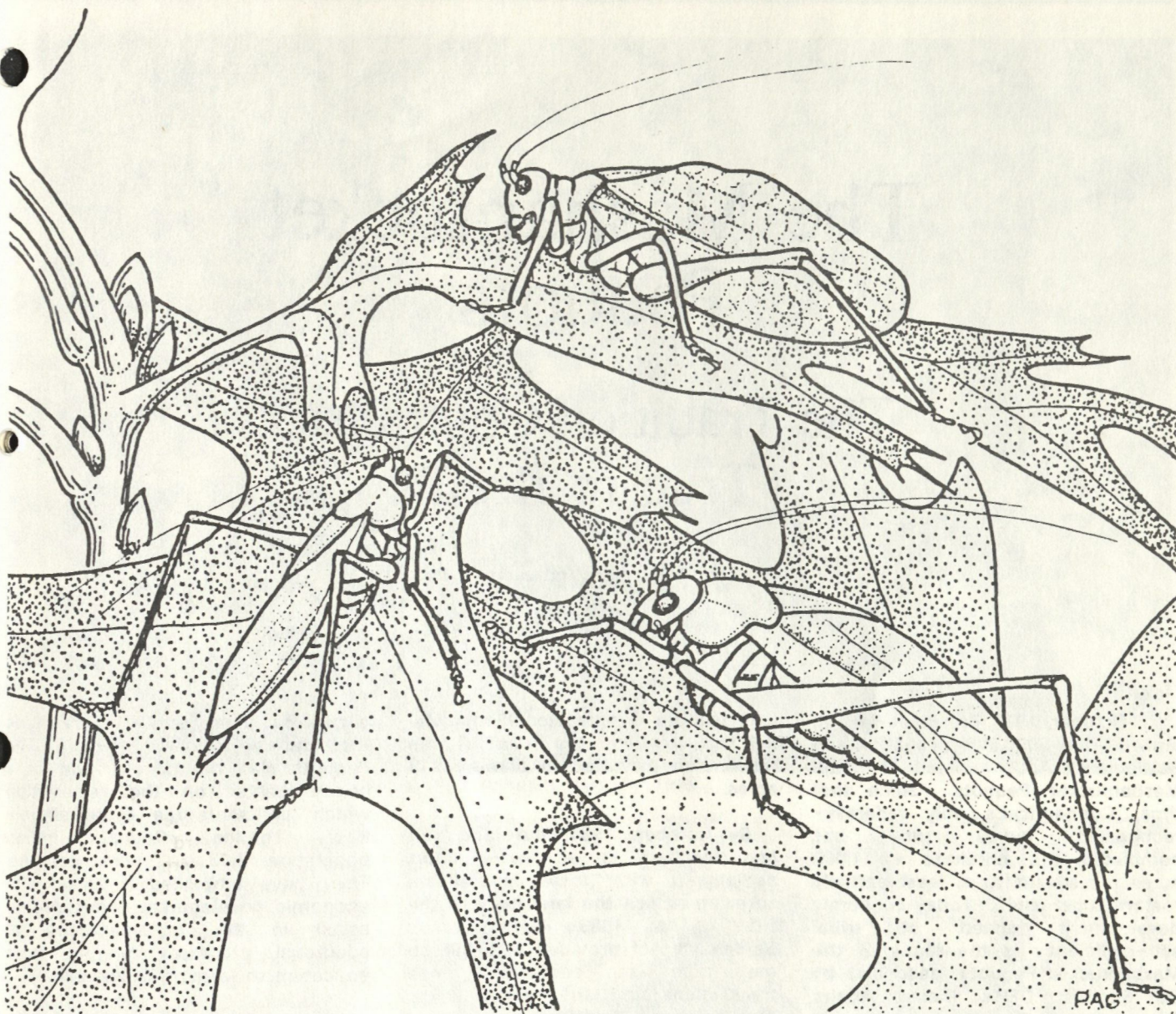
Whenever there are tall trees (and forests cover nearly 70 percent of Connecticut) one player is louder than the rest--the katydid, or *Pterophylla camellifolia*. We all know his song, but to our ears his rasping querulous "Katydid" or "Katydidn't!" or, more often, "Katy!" is hardly a love song. Still, that's what it is. It is a masculine voice. Female katydids only make soft rustling sounds when disturbed. Not many of us know who he is, though, and fewer have seen him, for he lives in the tops of trees and is nocturnal.

The katydid is a large green grasshopper with a round head and very convex forewings that completely cover its body. Like other members of the family *Tettigoniidae*, its antennae are thin, threadlike, and longer than the body.

Katydids don't begin their songs until light intensity drops to about one half foot-candle. Then they go on until midnight, and some individuals may continue until dawn. The sound is made when a ridge (called a scraper) on the upper surface of the right forewing is rubbed across a row of teeth (called the file) on the lower surface of the left forewing. Each stroke of the wing produces a pulse, and one or more pulses is a chirp. So, "Katy!" is

a two-pulse chirp, and "Katydid!" is a three-pulse chirp. Although the song is meant to attract sexually responsive females, other males respond, too. When males are 50 or more feet apart, they "solo" -- they seem to disregard their neighbors. Each katydid chirps at his own tempo, and in any neighborhood most of the soloists will chirp, "Katy!" or "Katydid!" But if the katydids are closer together, say 25 to 50 feet apart, they slow their chirp rate and chirp only in the interval between their neighbor's chirps. Called "alteration," this can go on for hours, first one, then the other, and perhaps a third.

When there are very close encounters, two feet apart or less, a confronted katydid (perhaps he is affronted) begins aggressive chirps. These are one to four pulses longer than the solo chirps. The intruder may respond by chirping. I imagine the two standing there, screaming at each other, trying to face the other down. In the end, one leaves the scene. He probably does not go far. Despite large wings (they may be an inch and a half long, and almost half as wide as long), katydids do not fly. Instead, they glide on their extended wings when knocked off a perch. Mostly they jump or crawl, and even then are very slow and deliberate.



From left to right, the fork-tailed bush katydid, the katydid, and the oblong-winged katydid.

After mating, females lay their eggs in cracks and crevices or insert them into soft wood or bark with their sharp curved ovipositors. The slate-gray eggs are about one-fifth of an inch long, oval and flat, something like a small cucumber seed. The eggs hatch in spring, and after successive molts the nymphs become adults in late July.

Other members of the family Tettigoniidae are called bush katydids, meadow katydids, or false katydids. In Connecticut, several of these could be confused with the true or northern katydid.

The oblong-winged katydid, Amblycorypha oblongifolia, is as large (two inches long), but its forewings are flat, and only one-third to one-fourth as wide as they are long. Also, the hindwings stick out beyond the forewings. It lives in low bushes. Its song, much quieter than the katydid's, has been described as a harsh scraping, "ki-zi-zik," or sounding like, "z - z - z - z - z zik-zik," repeated every few seconds. The round-winged katydid, A. rotundifolia, also lives in Connecticut, but is half an inch shorter and much less common.

Three of the five species of bush katydids (Scudderia sp.) that live in

Connecticut are as big as the true katydid, and they are green and have round heads. But like the oblong-winged katydid, their forewings are flat and do not cover the hind wings completely. And they are only a fifth as wide as they are long. These also live in low bushes and weeds. Their songs are not as loud as those of the oblong-winged katydid. The song of the forked-tailed bush katydid, Scudderia furcata, a common species, is a soft, "zeep-zeep-zeep," repeated three times.

So, here is a midsummer's night challenge: match the songs to the musicians! ■

The Mashantucket Pequots

The Tradition Continues, True to Itself

By Martha Kelly, Environmental Intern

In October, 1983, President Reagan signed a \$900,000 Land Claim Settlement Act, initiated by the Mashantucket Pequots. Since that time, Connecticut's only federally-recognized Indian tribe has completed the purchase of 1,000 acres in Ledyard to at least partially restore tribal lands. Today economic development aimed at tribal self-sufficiency is the focus of the Mashantucket Pequots, described by Ed Sarabia, DEP's Indian Affairs Coordinator as "the most progressive tribe in the state."

The Pequot's struggle to return to their tribal lands began in earnest ten years earlier, according to Richard Hayward, tribal chairman since 1975. Two years of research laid the groundwork for the submission, in 1976, of a civil suit which sought the return of 1,000 acres. The history of the Mashantucket Pequot reservation is not atypical. Established in 1667, it originally included 2,000 acres, but encroachment by English settlers during Colonial times reduced the reservation to approximately 1,000 acres. During the 19th century, overseers employed by the state of Connecticut sold off most of the remaining lands, despite federal law which prohibited the sale of Indian

land without congressional approval. By this century, the size of the reservation dwindled to a mere 213 acres.

By October, 1981, the land suit had resulted in an out-of-court settlement with local landowners agreeing to sell the land back to the tribe. The 1983 Land Claims Settlement Act provided \$900,000 to the tribe to complete these transactions at fair market value. Any remaining funds were earmarked for economic development.

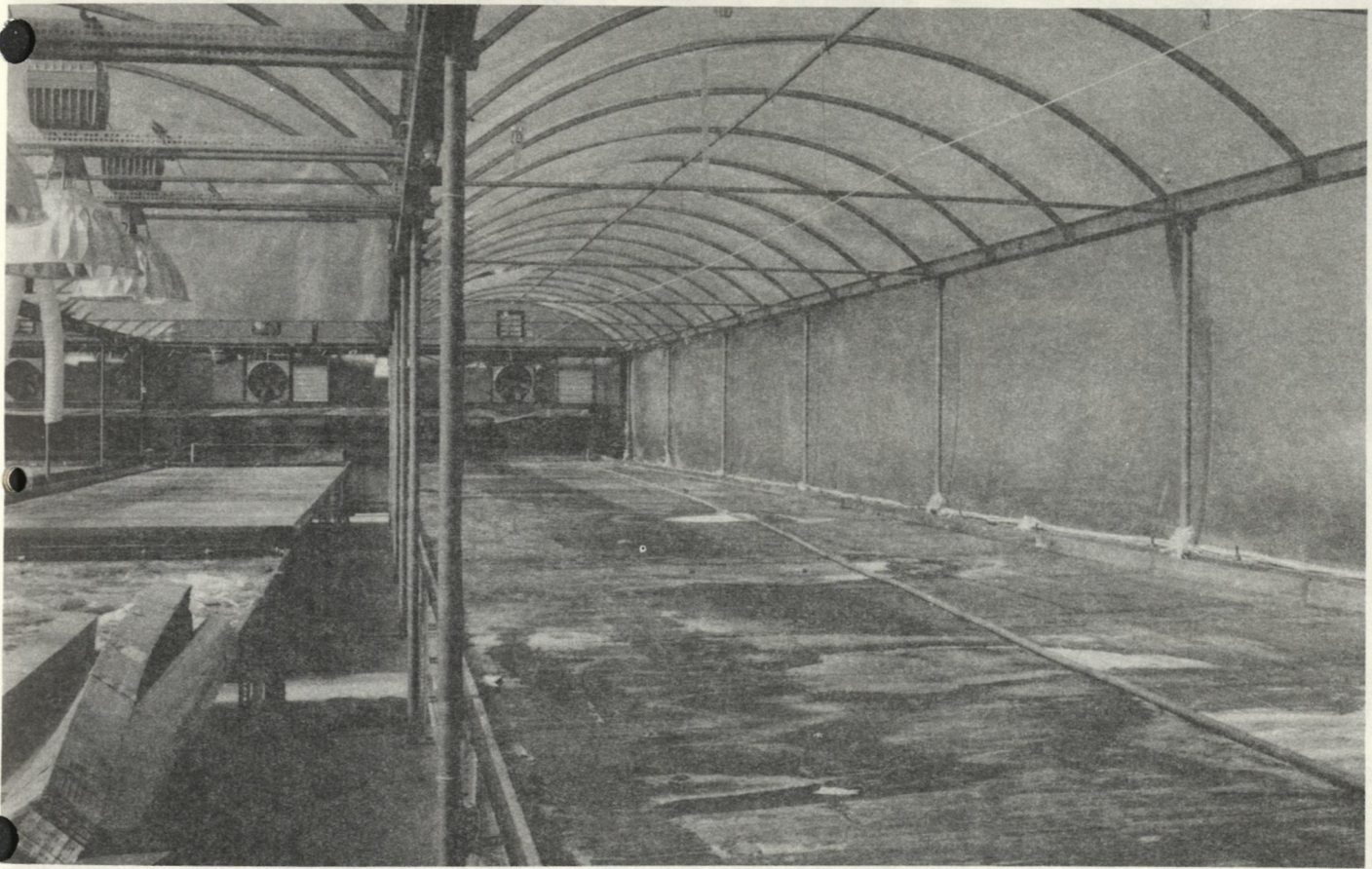
The 1983 act also granted federal recognition to the tribe. No other Connecticut tribe has yet achieved this status, which brings with it eligibility for a host of federally-sponsored programs and which so far has been denied to eastern Indians. Additional provisions of the settlement act guaranteed the return to the tribe of 20 acres of land containing the Pequots' ancient burial ground and the improvement of reservation roads. The administrative responsibility for the Pequots was transferred from the state's DEP to the federal government.

As a federally-recognized tribe, the Mashantucket Pequots are now

eligible for such federal programs as the Indian Health Service. The Pequots plan the construction of a health center on the reservation which will serve the entire eligible New London County Indian population, 500 or more persons. They have employed a social and economic development consultant to assist in the implementation of additional programs ranging from education to forest management.

The first stages of the Pequots' efforts to live and work as a community preceded the actual settlement of their land suit. In the late 1970s, the tribe formed a housing authority and, with the help of a \$1.2 million HUD loan, constructed 15 single-family homes. Previously, the peculiar requirements of reservation land ownership had blocked home construction. Banks were unwilling to write conventional mortgages on homes on which they could have no legal right of repossession. In a second building phase, the tribe has added 15 apartments, including units specially designed for handicapped accessibility.

Economic development efforts also proceeded concurrent with the land suit. In 1979, under the



A 4000 square-foot hydroponic greenhouse, constructed in 1979.

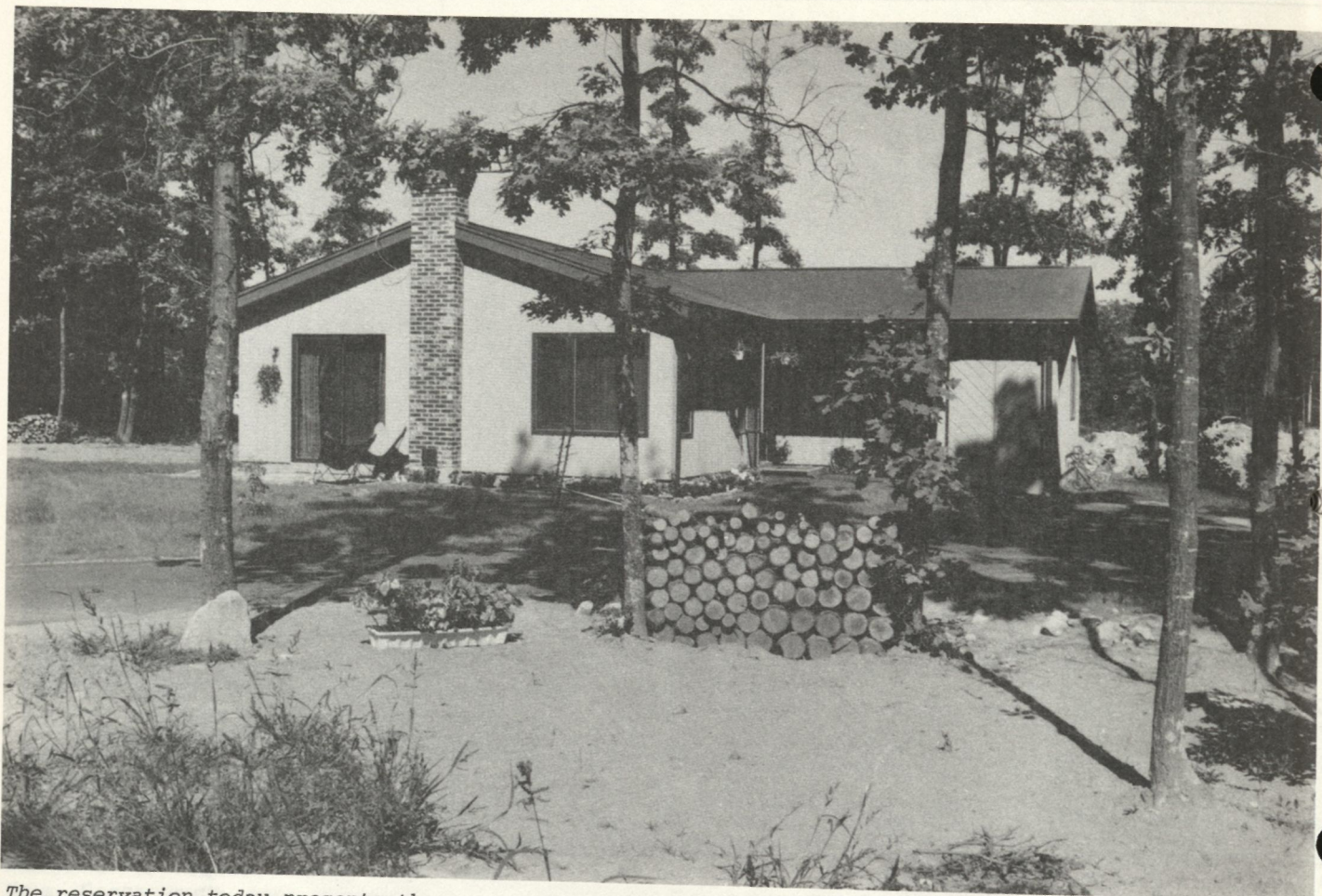
supervision of tribal member John Holder, CETA employees constructed a 4,000 square foot hydroponic greenhouse. Although operation of the greenhouse was later suspended due to high energy costs, the tribe hopes soon to revive its operation. Other tribal enterprises prior to passage of the land act included a small maple syrup operation and a community garden. Federal funding has helped purchase the Mr. Pizza restaurant on Rt. 2 in Ledyard. This enterprise and tribal administration provide employment for 37 persons.

There is a bit of irony involved in the tribe's most recent venture. When the Colonists assigned reservation land to the Mashantucket Pequots, they allocated the most fertile local land to English settlers and gave the Pequots a tract Hayward describes as "a rock pile," too hilly for farming. The tribe's plan to construct a water tower on the reservation will turn this liability into an asset. The Mashantucket reservation, although legally not part of the town of Ledyard, includes the highest point of land within the town's boundaries. The construction



How Connecticut Indians lived 300 years ago: A traditional wigwam under construction, showing sapling framework.

Karen Coody Cooper



The reservation today presents the appearance of a typical suburban development.

of a 250,000 gallon water tower, which is now in the bidding process, may serve the surrounding community as well as the reservation by providing the water supply for much needed fire hydrants for rural Ledyard property owners.

Development plans slated for future years include the construction of a tribal community center, administrative offices, and a museum. Dr. Jack Campisi of the State University of New York and Kevin McBride of the University of Connecticut have secured a grant from the State Historical Commission in order to complete an archeological survey of the reservation. The Mashantuckets plan the opening of the museum for June, 1987.

The atmosphere in the tribal administrative office is busy, yet relaxed. The duties of tribal chairman Richard Hayward are manifold. On any day, he may be involved within negotiations with a local social service agency over the health care provided to a tribal member; a

planning session with the tribe's economic development consultant; and a meeting with a local contractor. Meanwhile other tribal members are occupied with letters and financial statements.

With the neat new homes, children playing on the lawns, wood stacked ready for winter, the Mashantucket Pequot Reservation presents the appearance of a typical suburban development. Only an occasional wall hanging, bumper sticker, or container of Mashantucket Pequot maple syrup visibly proclaim the inhabitants' heritage. Asked to describe what distinguishes life on this modern suburban reservation from life in any other community, Sarabia replied that the difference is an inner rather than an outward one, stemming from the shared spirituality of the people. It is a tradition and a spirituality which, in spite of more than three centuries of hardship and obstacles, has continued to hold on, true to itself, in Connecticut today. That is something worthy of respect. ■

Martha Kelly has joined the staff of the Citizens' Bulletin as a student intern in conjunction with Trinity College's Individualized Degree Program. She is majoring in philosophy and plans to pursue a career in journalism and environmental study.

Leslie Bieber Lewis
Citizens' Participation Coordinator



For Your Information

Chimon Island: Another pearl on the string

On Saturday, September 8, The Nature Conservancy added another pearl to its string of natural area preserves. Chimon Island, an important heron rookery off Norwalk, has been saved forever from development.

Chimon Island had been a high-priority item in the Conservancy's Critical Areas Program. Researchers had determined that it was one of the three largest wading bird colonies on the northeast coast. Nesting species include great, snowy, and cattle egrets, black-crowned and yellow-crowned night herons, little blue herons, green herons, and glossy ibis. The island was also listed in Noble Proctor's book, Twenty-Five Bird Areas in Connecticut.

Chimon had been for sale for many years, and it even showed up in a Northeast Magazine article on luxury properties. The asking price did indeed make it a luxury -- \$2,500,000, well beyond the Conservancy's financial means. At least one offer was made at that price, from a developer who planned

to build 22 homes on the island. Luckily, owner William Garofolo was persuaded to convey the island to the Conservancy through a bargain purchase, by which he sold part of the property and donated the rest for tax purposes. The final price was \$1,130,000.

Fund raising for the purchase of Chimon Island was carried out vigorously during the last year, as the option on the property was due to expire on September 15. The city of Norwalk pledged \$100,000 toward the project, and numerous businesses, organizations, and individuals contributed \$800,000 more to make The Nature Conservancy's dream of owning the island a reality.

While all of this would seem a happy ending to a long story, there is even more good news. As the Conservancy was negotiating to buy Chimon, the Connecticut congressional delegation was moving a bill through the House and Senate to create the state's first National Wildlife Refuge System. This refuge system would include Sheffield and Faulkner's Island, Milford Point, and Chimon Island as a keystone. Under the leadership of Representatives McKinney and Ratchford and Senator Weiker, the bill passed through both Houses. President Reagan has promised to sign the bill when it reaches his desk.

Once the funds are appropriated, the U.S. Department of the Interior will buy Chimon Island from The Nature Conservancy. The taxpayer

will get a break because the price will be considerably lower than it would have been on the open market. Money from the sale will be plowed back into the Conservancy's Critical Areas Program, allowing other important natural lands to be preserved. Meanwhile, the birds of Chimon Island are assured an undisturbed future, and will grace Connecticut's coastline for generations to come. ■

Game Cookbook

Most hunters who are successful in the field probably have favorite methods of preparing their game. For those who yearn for a change of pace from the standard venison burgers, fried steaks, and roasts, however, there is a new cookbook available which should tempt the most discerning palate. Gray's Wild Game Cookbook, by Rebecca Gray, with Cindra Reeve, is unique both for the quality of the recipes and the inclusion of complete menus.

Ms. Gray is the co-founder of Gray's Sporting Journal, so she is no stranger to all of the planning and effort associated with hunting. She contends that the same planning and effort should go into the cooking of a game dinner. She offers an array of menus which include salads, vegetables, and desserts and which range from black-tie formal to around-the-campfire casual.

The book is organized according to game type: "Venison"; "Upland Birds"; "Waterfowl"; and "Mixed Bag." Informative chapters called "Game Care," "There's More To A Menu Than The Game," and "A Few Suggestions" round out the offerings. Even if you have been cooking game for years, the tips should come in handy.

The menus present an array of dishes, so there is bound to be something for everyone's taste. For instance, how about venison with port, sauteed watercress, and peach and pear ice? Or green-grape quail,

Game Birds

From page 7

In the spring, male bobwhites start exhibiting aggressive behavior toward one another, signaling the onset of the breeding season. Their fights are not terribly serious and usually consist of little more than feather pulling. Quail are monogamous and it is thought that they remain paired for life. Courtship proceedings involve the male displaying to the female by puffing out his feathers, dropping his wings, spreading his tail, and charging at the female until she submits.

Male bobwhites stay close by the females and actually do the nest building. They prefer sites in stands of tall grasses and, after creating a hollow in the earth, will line the nest with leaves and grasses. The female lays as many as 12 to 15 eggs, most of which will hatch. The male remains some distance from the nest during the incubation period which lasts about 23 days. If for some reason the female is killed, a male bobwhite may complete the task of brooding the eggs and raising the young. Both parents tend the chicks, helping them learn to feed and protecting them during periods of adverse weather.

Quail are extremely sociable birds and gather in flocks or family groups. These units will often join forces. At night, the birds will form a tight circle with their tails inward and heads pointing out. This flocking circle serves the birds well, as at least a few birds are awake and able to warn of predators. In addition, the quail provide warmth to one another when tightly pressed in the circle.

Bobwhite quail are primarily vegetarians, although they will take grasshoppers, crickets, beetles, earthworms, and the like. Weed seeds, particularly ragweed, are favorites of the bobwhite, and thus the presence of these quail should be considered extremely beneficial.

As mentioned earlier, loss of habitat is probably the greatest enemy of the bobwhite. Hedgerows that were abundant in the era of large numbers of small farms provided ideal habitat for bobwhite



The ring-necked pheasant is one of the showiest of the game birds.

quail. With the disappearance of many farms and the greater size and specialization of those that remain, hedgerows are much rarer. Thus, in many areas, the bobwhite is not as abundant as it once was.

One of the showiest game birds is the ring-necked pheasant (*Phasianus colchicus*). A bird native to Asia, the pheasant was first introduced into the United States in the late 19th century. Due to its hardiness and adaptability, it is abundant in regions of suitable habitat.

The male pheasant, or cock, sports the bright plumage. Head and neck are deep metallic-green, offset with blood-red cheek patches and a white ring at the base of the neck. The body feathers are varying shades of brown with dark markings. The long sweeping tail is a distinctive feature of the pheasant and, in males, accounts for about two-thirds of the total length. Females are

smaller in length and are mottled-brown in color.

A male in breeding plumage is at his most colorful stage. By April, the cheek patches have enlarged and are an intense shade of red. Apparently, these patches are important as the dominant male is often the one with the largest patches. Cock pheasants will fight each other in the process of establishing a harem. A successful male will mate with from four to seven hens.

The hen selects and fashions the nest, which consists of a grass-lined depression. She lays one egg daily until 10 to 12 eggs are laid and then begins the task of incubating them. In about 23 days, the young hatch. Pheasant chicks can leave the nest within hours of hatching and follow their mother away from the nest site. For several weeks, the hen broods her chicks, protecting them from wind and weather. By one

week they are able to fly a few feet and by four weeks they can fly fairly well.

Adult pheasants are not capable of sustained flight. They can, however, get off the ground quickly and are strong, short-distance fliers.

Pheasants feed on both animal and vegetable matter. Grains are the major staple of their diet; however, they eat many berries and fruits and a number of weed seeds. Insects and earthworms make up the bulk of the animal matter that they consume.

Despite the fact that the pheasant is preyed upon by many animals, including fox, raccoon, weasel, opossum, hawk, and owl, it manages to survive and thrive. Even brightly colored males blend into their surroundings when still and hunkered down. Females and chicks are well-camouflaged. Pheasants are fast runners and prefer this method of escape. Pheasants can swim and occasionally do so in order to escape predators.

Unlike many introduced species, the pheasant has not displaced or out-competed native birds. The pheasant's taste for weed seeds and its handsome appearance make it a welcome introduction.

The woodcock (*Philohela minor*) is one of the smallest game birds. Although a member of the shorebird family, it is not a bird of the shore, but rather inhabits moist woodland or brushy swamps. A chunky, rotund bird, the woodcock is distinguished by its long bill and large protruding eyes which are set back on its head. The eyes, although they give the woodcock a somewhat comical look, enable the bird to watch for trouble while it is in the process of feeding.

In coloration, the bird is a buff-brown, with its back heavily splotched. It so closely resembles dead leaves that the woodcock can be indistinguishable from the forest floor. The woodcock's bill measures up to three inches long. The upper mandible has a flexible tip which is used in extracting earthworms from soft, muddy earth.

The woodcock is a bird of eastern North America from southern Canada to the Gulf states. It winters

primarily in the southeastern states. Although its range is not changing, many localized habitats have been destroyed due to development.

The woodcock is a silent bird and not often seen. However, by April the woodcock is active in its nesting areas. At this time, the male goes through an elaborate evening ritual for the female. The performance usually takes place in a clearing in the woods. The male will start in the center of the clearing and whirl upwards for several hundred feet, twittering as he ascends. He repeats these flights about every five minutes and keeps up for about half an hour. During this display, the female appears quietly, they mate, and then she retreats while he continues to spiral. Those who know the location of a woodcock breeding ground can observe this fascinating performance every spring.

A woodcock nest is simply a depression in the leaves and is usually near a swamp. The female is well-camouflaged and is difficult to spot on the nest. Four eggs are generally laid and both male and female take turns incubating. After three weeks the precocious young hatch. They, too, have protective coloration and will remain motionless if warned of danger.

The woodcock flies straight up when flushed, leveling off once it has cleared the tree tops. Flight during migration is faster than it is under normal conditions. The woodcock migrates at night, arriving in the north in late February. It returns to winter grounds during late September and October.

The woodcock is most active at twilight and at dawn and is also active during nighttime hours. If one is looking for signs of the woodcock's presence, a conspicuous "white wash" and numerous bore holes in soft earth are good indicators.

The woodcock is prey to many of our common mammals, snakes, hawks, and owls. It can also suffer greatly during snowstorms which cover its food source.

The woodcock, with its odd appearance and unique courtship rituals, is among the most interesting of game birds. It is a bird

appreciated by hunters as well as non-hunters, in fact by anyone fortunate enough to catch a glimpse of this elusive bird. ■

Cookbook

From page 19

wild rice with walnuts, and creme brulee? Many of the recipes can be used for more mundane meats should you not have a freezer full of game. One note of caution: Gray advocates the use of the best possible ingredients, some of which are expensive. As she points out, hunting is not a cheap sport. Figure out how much it cost to bag those ducks, and you might be willing to spend a few extra dollars to come up with a really fine meal.

Gray's Wild Game Cookbook (distributed in Connecticut by the Globe-Pequot Press) would make a handy addition to the collection of the sportsman who enjoys the meal as much as the hunt. It would be a great gift to the hunter's spouse, as well. After all, if hunting season is here, Christmas can't be far behind. ■

Connecticut Walk Book

The 14th Edition of the Connecticut Walk Book, a complete guide to more than 500 miles of the Blue Blazed Trail System, is now available. This guide, upon which hikers have relied for many years, contains descriptive information about trails, points of historical and geological interest, and scenic views found along the trails, as well as maps which indicate the location of the blue blazed trails throughout the state.

The 14th Edition of the Connecticut Walk Book may be obtained at a cost of \$11.50 per copy including sales tax, postage, and handling.

Checks or money orders should be made payable to the order of the **CONNECTICUT FOREST AND PARK ASSOCIATION** and mailed to P.O. box 8537, East Hartford, CT 06108. ■

Off-Season Camping in Connecticut's Parks

To provide Connecticut citizens with the pleasures of off-season camping, William F. Miller, Director of DEP's Parks and Recreation Unit, has announced that the following areas have been designated for use during the fall - winter camping season effective October 1 and ending February 28:

WESTERN DISTRICT - 485-0226

American Legion State Forest - Austin Hawes campground - 15 sites. Midway between Pleasant Valley and Riverton on West River Road.

Housatonic Meadows State Park - 25 sites. one mile north of Cornwall Bridge on Rte 7.

Kettletown State Park, Pump Field - 30 sites. 3 1/2 miles south of I-84, Kettletown Rd. to Georges Hill Rd., 0.7 mile to entrance.

Macedonia Brook State Park - 15 sites. four miles north of Kent, off Rte 341.

EASTERN DISTRICT - 295-9523 or 344-2115

Cockaponset State Forest - 12 sites. 2 1/2 miles west of Chester on Rte 148; north on Cedar Lake Rd., two miles.

Pachaug State Forest, Mt. Misery Area - 22 sites. Off Rte. 49, north of Voluntown.

Mashamoquet Brook State Park - Pomfret, Indian Chair Youth Group Area - Open Nov. 1 until Feb. 28. Camping by advanced arrangements only. Phone 928-6121 between 8:00 a.m. and 3:30 p.m.

Lots will be issued on a first come, first served basis. The camp stay is limited to three nights with an absence of 24 hours before returning. There will be no charge. Dogs on a leash are permitted at these camping areas during this off-season period only.

These are areas that were established with two thoughts in mind: (1) to provide as wide a geographical coverage as possible; and (2) to consider the proximity to other fall and winter uses such as hunting, snowmobiling, and skiing.

To insure a pleasant camping experience for everyone, the Parks and Recreation Unit requests your fullest cooperation in complying with the Rules and Regulations of the Department of Environmental Protection, and that whenever feasible you take your refuse home with you.

Report any acts of vandalism, littering, or general misuse of these areas to the manager or patrolman. If you do not wish to become involved, just reporting the marker plate of a violator will suffice. ■

Close Encounters of the Furred Kind

Camping in bear country?

Expect the unexpected, because bears are predictably unpredictable, says National Wildlife magazine.

Knowing about bears in bear country could make the difference between an outdoor adventure and a tragedy, according to the bimonthly publication of the National Wildlife Federation.

"Few back country campers have ever seen a bear. Far fewer have been injured by one," says Stephen Herrero, a wildlife biologist with the University of Calgary.

However, after conferring with National Park Service officials and experienced campers, Herrero and others have made some sharp conclusions about how campers can avoid problems with the wild creatures.

As one biologist succinctly stated: "There are no absolute formulas because the characteristics of individual bears vary as much as do the characteristics of individual people."

The first step is to understand a bear's habits and actions. If given a choice, bears are usually known to be shy animals and will run away from an intruder rather than challenge him. On the other hand, if a bear is surprised or senses a threat to its cub, it will probably defend its ground. When inspecting their surroundings, bears tend to grunt, woof, and snap their jaws as they determine the threat of danger nearby.

Above all, the most valuable ingredient to a safe, accident-free outdoor experience is preparation for an encounter. Here are a few suggestions, according to National Wildlife:

Always remain calm -- running or shouting could encourage an attack.

Retrace your path on the trail each time the bear retreats, slowly moving away from the bear and toward a tree big enough to carry your weight, and tall enough to be out of reach from below.

If an attack seems unavoidable, and there is no tree in sight, playing opossum -- by lying limply on the ground as if you were dead -- could save your life. Others have also advised kneeling on the ground with your head between your knees and clasping your hands behind your neck -- forming a tight, well-protected ball while shielding your face, neck, and chest areas.

Hikers should never travel alone. Some even recommend hiking in groups of six or more.

Familiarity with an area and selection of a proper campsite are also important. Game trails should be avoided, since bears often use them at night.

Keep a clean campsite -- no hungry bear can pass up leftover scraps. If there are fishermen in your party, make sure that they prepare their catches at least 100

Leonard Lee Rue III



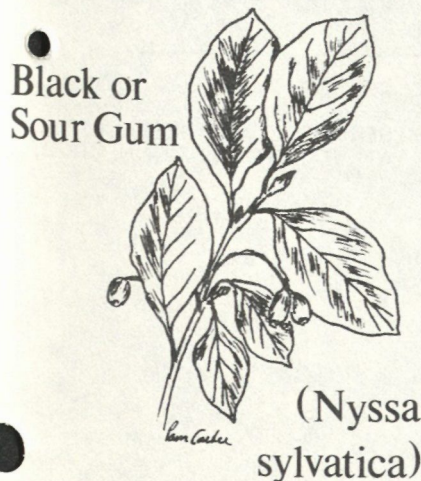
Black bear cub, about two months old.

yards away, and that they store their clothes in airtight sacks in order to prevent the escape of enticing odors of fresh fish.

Editor's note: Connecticut's campers may be assured that the chances of meeting a bear in the state are slim in the extreme. ■

Trailside Botanizing

By G. Winston Carter



(*Nyssa sylvatica*)

Black gum is a rather picturesque tree with horizontal or drooping

branches and bright-colored autumn foliage. These characteristics, along with its attractiveness to wildlife, make it a good ornamental for some sites, particularly around ponds and lowland areas. Its natural habitat is in swamps or moist ground but it will grow well on drier sites.

A water nymph in classical mythology was the source of the genus name *Nyssa*, while the species name *sylvatica* means "of the woods."

Black gum usually has long leaves which are glossy, untoothed, and taper at both ends. The twigs have an interesting kind of pith. It is chambered, which means that it has thin partitions. The bark is quite variable. It may be narrowly or deeply furrowed, divided into small, squarish plates, or it can be relatively smooth.

The inconspicuous flowers blossom from May to June, forming at the base of the new leaves. Both male and female flowers are formed in clusters, and are usually produced

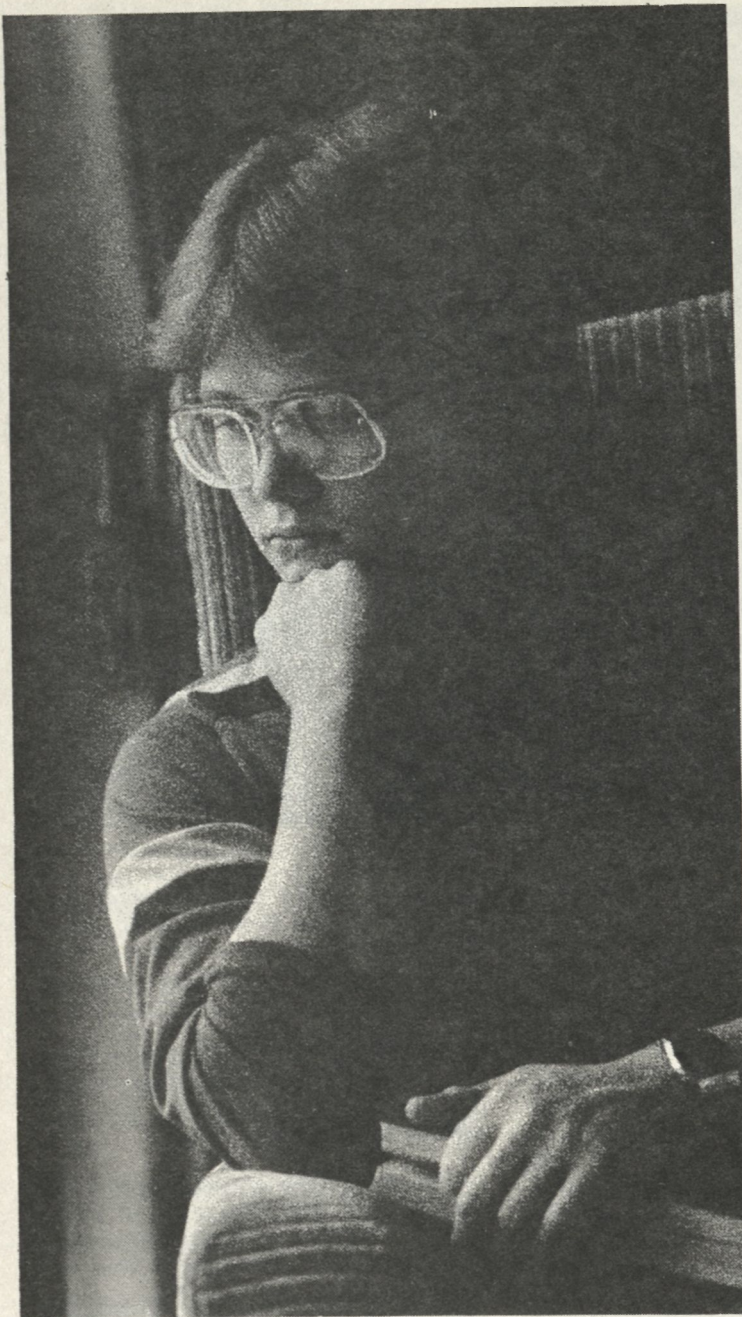
on separate trees. The tiny males are numerous and they droop, while the female flowers are few in number and are more erect.

The fruit forms in October and is bluish-black with two or three in a clump. It is thin skinned, fleshy, and on a long stalk. The pulp is sour or bitter.

Black gum has a moderate growth rate and a moderate life span. It is a medium sized tree which usually grows to be 50 to 60 feet in height, with a diameter of two to three feet.

The wood is hard and heavy. It is used for veneer, furniture, gunstocks, pistol grips, chopping bowls, and for constructing docks and wharves.

The fruit of black gum makes a fine preserve, while over 30 species of birds depend on it for food. These include the cedar waxwing, hairy woodpecker, mocking bird, common flicker, and wood thrush. The leaves and twigs are browse for deer and beaver. ■



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